

C₁
helium, the argon and the helium with a content greater than or equal to 70% by volume; and

a third gas consisting of O₂ or CO₂ with a content of non zero to 30% by volume.

Amend claim 2 as follows:

(2)
2. (twice amended) The welding process as claimed in claim 1, wherein the content of O₂ or CO₂ is non zero and less than or equal to 20% by volume.

Cancel claims 3-6.

Amend claim 7 as follows:

(3)
7. (thrice amended) The welding process as claimed in claim 1, wherein the shielding atmosphere is formed by a gas mixture consisting of at least 70% by volume of helium and argon and of 0.1 to 30% by volume of O₂ or CO₂.

Amend claim 8 as follows:

C₄
8. (thrice amended) The welding process as claimed in claim 1, wherein the workpiece or workpieces to be welded are made of coated or uncoated steels.

Amend claim 9 as follows:

C5 9. (thrice amended) The welding process as claimed in claim 1, wherein the workpiece or workpieces to be welded are made of stainless steel or carbon steel.

Cancel claims 10-14.

Add the following new claims:

C6 22. (new) The welding process as claimed in claim 1, wherein the electric arc is generated by a consumable or a non-consumable electrode.

23. (new) The welding process as claimed in claim 1, wherein the third gas consists of CO₂ with a content of non zero and less than 15% by volume.

24. (new) The welding process as claimed in claim 1, wherein the third gas consists of O₂ with a content of non zero and less than 5% by volume.

25. (new) The welding process as claimed in claim 1, wherein the third gas consists of CO₂ with a content of non zero and less than 2% by volume.

26. (new) A ternary ~~gas mixture~~ consisting of:

BRIAND et al. S.N. 09/870,014

CO₂ with a content of non zero and less than 15% by
volume;

argon; and

helium, the content of the argon and the helium
comprising the balance.

27. (new) A ternary gas mixture consisting of:

O₂ with a content of non zero and less than 5% by
volume;

argon; and

helium, the content of the argon and the helium
comprising the balance.

28. (new) A ternary gas mixture consisting of:

CO₂ with a content of non zero and less than 2% by
volume;

argon; and

helium, the content of the argon and the helium
comprising the balance.

Charge the fee of \$84 for the one independent claim in
excess of three added herewith to deposit account No. 25-0120.